Monitoring & Evaluation Program
UW-Extension
UW Comprehensive Cancer Center
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WISCONSIN TOBACCO CONTROL BOARD

Program Brief
March 2003

School Tobacco Program: First Year Assessment

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Major findings:

- Funding was provided to 46 projects covering 165 school buildings in 55 districts in Wisconsin serving 273,028 students. The purpose was to support enhanced implementation of school tobacco programs which followed the Centers for Disease Control and Prevention's Guidelines for School Health Programs to Prevent Tobacco Use and Addictions.

- School districts report that over 40,000 students received classroom instruction, about 19,000 received new or enhanced peer services, and nearly 600 were served by or referred to tobacco cessation programs.

- At the end of the first year of funding, 89% of funded schools reported significant and substantial improvement in one or more areas addressed in the CDC Guidelines. The improvement reported by funded schools was greater than that reported by unfunded applicant districts.

- The largest improvements were reported in the areas with initially the most need–cessation, evaluation, staff training and family/community involvement.

- Evidence from prior research in other states suggests that enhanced implementation of the CDC school guidelines is associated with significant reduction in student tobacco use. These results are expected in Wisconsin as well with continued improvement in implementation of school tobacco programs and policies.

Background

The Department of Public Instruction (DPI), in cooperation with the Wisconsin Tobacco Control Board (WTCB), administers and oversees the School Tobacco Program Grants. This program allows public school districts and consortia to apply for funds to create or expand upon strategies identified as effective by the Centers for Disease Control (CDC) in reducing or eliminating youth tobacco use. There is research evidence that implementation of the CDC Guidelines in California schools was significantly related to reduced smoking prevalence, increased quit attempts and increased negative expectations and attitudes among students regarding tobacco (Rohrbach et al., 2002). Another study in Oregon found that schools with high or medium levels of implementation of the Guidelines, relative to low implementation schools, had greater decline in 8th graders' 30-day smoking prevalence. Thus the DPI used the CDC Guidelines as the cornerstone of this grant program.

In order to be considered for grant receipt, districts and consortia were required to submit policy and program assessments for each of their respective school buildings. One hundred and nine school districts and consortia throughout the state applied for grant funding on behalf of the 313 school buildings they serve. Forty-three percent of applicant school districts and 36 percent of consortia received first year grant funding, with a total award amount of $1,062,194. (See Anderson, Moberg and White, 2002 for a detailed report on the baseline data). In the 2002-03 school year the same districts were awarded a reduced second year total of approximately $625,000.

A total of 46 projects were funded, reaching 165 school buildings in 55 districts and 273,028 enrolled students. Based on district-wide enrollment, the awards in the first year were approximately $4.00 per student. However, many districts focused their efforts in a subset of schools, thus increasing the per pupil allocation.

In addition to providing grant dollars to local school districts, targeted training and technical assistance was provided to schools and communities through ongoing collaboration between the Department of Public Instruction, American Lung Association of Wisconsin, CESAs and local tobacco free coalitions. Statewide training and technical assistance efforts targeted cessation, youth education programs, and staff development as well as policy communication and enforcement.

Methods

All applicant schools completed self assessments of their school tobacco prevention programs as part of their grant application process. These assessments serve as the baseline for evaluation. In order to evaluate change, funded schools again completed the assessment at the end of the first year of funding, with an 86% response rate (n=155 of 180 schools with baseline data). Unfunded schools were also surveyed at the end of the 2001-02 school year and re-assessments requested for purpose of comparison to the funded districts. The unfunded school follow-up response rate was 40% (n= 61 of 154 schools with baseline assessments).

The assessment questions were developed from the CDC's Guidelines for School Health Programs to Prevent Tobacco Use and Addiction (1994). Seven assessment sections follow the CDC's recommendations for ensuring quality school programs that prevent, reduce or eliminate tobacco use: policy, instruction, curriculum, training, family & community involvement, tobacco cessation, and evaluation. Each of the 58 assessment questions measured the level to which each school building had elements of quality tobacco education programs and policies in place. Questions were scored according

to whether a given characteristic existed completely ('yes'), existed only to some degree ('somewhat'), or not at all ('no'). Responses were scored two, one, or zero points, respectively, to each question and averaged within each area of the guidelines. The higher the score, the more anti-tobacco programs consistent with the guidelines were in place.

In addition to the self-assessments provided as part of the grant program itself, an independent assessment was also conducted using the vehicle of the nation-wide School Health Education Profile (SHEP) survey. This survey, sponsored by the Centers for Disease Control and Prevention, periodically surveys a representative sample of middle and high schools in each state regarding their health education programs and policies. For purposes of this evaluation, the fall-winter 2001-02 school year SHEP survey was used. Schools with tobacco program funding that did not fall into the randomly drawn SHEP sample were nonetheless surveyed (a separate over-sample when SHEP analysis was conducted). This allowed a direct comparison of funded middle and high school's reported tobacco prevention programs and policies with those of a random sample of schools in Wisconsin. It also allows for a validity comparison of the self assessment data from the school's funding applications to the survey data reported independently on the SHEP survey. Since the SHEP survey was conducted in the first 3-6 months of tobacco program funding, these data are more interpretable as a baseline comparison than as an outcome analysis. The extent to which program funding led to divergence between schools will be assessed when the next SHEP survey is conducted in 2004.

Results

Districts that received funding from the WTCB were compared to districts that did not receive funding at both baseline and follow-up to estimate the effects of funding on changes in school tobacco policies and programs.

Baseline Assessment

On the baseline self assessments, we found that school policies in funded schools were most consistent with the CDC Guidelines (73% of possible score), followed by curriculum (57%) and instruction (47%). Less consistent with guidelines were the areas of staff training (28%), family/community involvement (29%), cessation programming (18%) and evaluation (19%). Thus there was a great deal of room for improvement in many of the guideline areas. Comparison of funded to unfunded schools on the baseline assessments indicated significantly lower scores--higher levels of need--in funded schools overall and in the areas of policy and curriculum.

School Health Education Profile (SHEP)

The middle and high schools that were funded were compared to the random sample of Wisconsin schools surveyed for SHEP on both the principal and health educator surveys. On the principal survey which focused on policies, the funded schools differed on three of fifty items analyzed. Funded schools were more likely than random schools to ban tobacco use by faculty at off-campus school sponsored events (92% vs. 82%); to ban tobacco use by visitors at off-campus school sponsored events (77% vs. 67%), to have specific mechanisms to educate their faculty about tobacco policy (100% vs 94%), and were more likely to encourage but not require participation in education or cessation programs for students caught smoking cigarettes.

There were also several differences between funded schools and the random sample on the SHEP health education teacher survey. Funded schools were more likely to report including content in required health education courses on how students can support or influence other students to quit using tobacco (90% vs.

81%). They were also more likely to report having received staff development on tobacco use prevention in the past two years (59% vs. 34%).

Assuming that the grant program is successful, the differences between funded schools and schools at random are expected to increase over time. The SHEP survey was conducted early in the funding cycle and differences that result from program funding were unlikely to be observable at that early point in time.

First Year Results

At the end of the first year, districts reported that 40,045 students received classroom instruction using "curriculum developed, enhanced or purchased through the grant," 18,969 students received programs/services from trained peers, 1729 students were trained for peer to peer tobacco programs, 589 students were referred for or served by cessation programs, and 428 students were disciplined under new tobacco policies. Districts (n=46) reported that grant-funded activity had focused on curriculum (89%), peer to peer program implementation (61%), cessation and student assistance (56%), community connection and coalition building (50%), parent/family education and outreach (44%), and policy development (37%).

Results from self assessments at the end of the first year show that the funded as well as unfunded schools increased significantly on all areas of the CDC guidelines, with funded schools increasing at a higher rate than unfunded (Table 1). The table presents the data in the original metric of the questions, averaged across the items in that domain. The scales can thus range from 0 = Not in place, 1 = Somewhat, and a possible high of 2 = Yes, is in place. A 0 score would indicate none of the elements of an area are in place, while a 2 would indicate all elements in that area are in place.

Overall, 89% of funded schools reported significant improvement in at least one area of the CDC school tobacco guidelines. This was measured by an increase of at least .25 standard deviation units on at least one of the seven areas. Averaging across areas, about 60% of the funded schools changed at least .25 s.d. on each dimension. (This effect size is considered programmatically significant in most research.) The largest changes were reported in the areas with initially the most need–cessation, evaluation, staff training and family/community involvement.

A more complex multiple regression model of the effects of funding which controlled for the baseline level on each measure found that the baseline level was a significant predictor of follow-up level on all measures. When a P value of .10 is applied there was significantly greater change among funded schools than among responding comparison schools in the areas of staff training, family/community involvement, and cessation programming.

Limitations

The unfunded (comparison) schools that responded to the self assessment survey at the end of year one represent a biased sample of schools that in the baseline self assessment already were higher than non-responding schools on 4 of 7 scales measuring implementation of CDC guidelines–the primary outcome of interest. If a more representative sample had responded to our follow-up survey the differences between funded and comparison (unfunded) schools would be even more pronounced.

In addition, statewide training and technical assistance in tobacco programming was made available to all schools statewide. Thus noted improvements in tobacco programming in unfunded comparison schools (see Table 1) may be partially due to grant-sponsored T& TA activities.

The self assessment tool was developed primarily as a planning and needs assessment device for schools. As such, validity and reliability of responses were not initially issues in the development of the tool. The limitations from an evaluation research perspective are that the tool is completed as a self report from individuals or teams in each school, potentially with differential incentives for impression management at baseline (to demonstrate need) and at follow-up (to demonstrate progress). In addition, different individuals/teams may have completed the tool at the baseline and follow-up with different response biases inherent in the process.

Table 1:
Mean Change During Year One
(N = 155 funded and 61 unfunded buildings)

		Baseline	One Year	Difference	T-Statistic
Policy (17 Items)					
	Funded	1.54	1.72	.177	7.15**
	Unfunded	1.66	1.78	.125	3.29*
Curriculum (17 Items)					
	Funded	1.19	1.49	.296	7.87**
	Unfunded	1.49	1.65	.161	3.03*
Instruction (6 Items)					
	Funded	0.99	1.28	.287	8.58**
	Unfunded	1.49	1.65	.134	2.32*
Training (4 Items)					
	Funded	0.60	0.99	.390	7.23**
	Unfunded	0.63	0.85	.215	2.49*
Family / Community Involvement (7 Items)					
	Funded	0.68	1.04	.365	9.38**
	Unfunded	0.70	0.89	.191	2.42*
Cessation (3 items)					
	Funded	0.42	0.90	.481	9.08**
	Unfunded	0.45	0.67	.218	2.68*
Evaluation (4 Items)					
	Funded	0.45	0.88	.422	7.55**
	Unfunded	0.50	0.79	.289	2.74*
Overall (58 Items)					
	Funded	1.08	1.38	.294	11.5**
	Unfunded	1.23	1.41	.179	4.5**
		Scale ranges from 0 = none in place to 2= all elements in place			*P<.05 **P<.001

Comment

These data indicate significant improvement in tobacco programming in Wisconsin schools related to receipt of the Tobacco Program grants. In addition, training and technical assistance provided under the grant program may have also effected both funded and unfunded (comparison) schools. An additional self assessment follow-up of funded schools will be conducted at the end of the second year of funding (summer 2003). In addition, the next round of SHEP survey data will be analyzed to assess anticipated long term differences between funded schools and random schools in their tobacco programs and policies. Generalizing from other research linking student outcomes to high levels of implementation of CDC Guidelines, we expect that student tobacco use will be significantly reduced by this grant program.

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The Wisconsin Tobacco Control Board provided support for this report.
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